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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/592,179	06/12/2000	Peter Gerber	80058-004800US	5364

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EXAMINER	
NGUYEN, NAM V	
ART UNIT	**PAPER NUMBER**
2635	18

DATE MAILED: 03/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/592,179	GERBER ET AL.	
	Examiner	Art Unit	
	Nam V Nguyen	2635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This communication is in response to applicant's response to amendment C which is filed November 18, 2003 by a request for continued examination.

An amendment to the claim 1 has been entered and made of record in the application of Gerber et al. for an "interrogation and responder system for identifying a target" filed June 12, 2000.

Claims 1-9 are pending.

Response to Arguments

Applicant's amendment and arguments with respect to claims 1-9, filed November 18, 2003 have been fully considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yerbury et al. (US# 5,134,277) in view of Kiser (US# 6,097,330).

Referring to claim 1, Yerbury et al. disclose an interrogation system for use with a hand-held weapon (column 2 lines 42 to 68; column 3 line 56 to column 4 line 3; see Figure 1) comprising:

A hand-held weapon (i.e. an interrogator gun) (column 2 lines 42 to 68; column 5 lines 17 to 33; see Figures 1-2),

a transmitting device (2) (i.e. an interrogator) which transmits an inquiry to a responder device (1) (i.e. a tag) in the form of directionally specific single electromagnetic pulses or short bursts of electromagnetic pulses which are staggered with different distances between said pulses or short bursts of pulses (column 4 line 60 to column 5 line 33; see Figure 1),

A responder device (1) (i.e. a tag transponder) having has sensor (23) (i.e. an antenna of transponder) for detecting such electromagnetic pulses an evaluation unit (22) (i.e. a code generator and timer) for processing such detected pulses and a transmitter (i.e. 23) for sending back a response to the transmitting device's inquiry (column 5 lines 34 to 65; see Figures 3-4),

Wherein said transmitting device (2) (i.e. an interrogator) further contains a transmitting device sensor (37) (i.e. a antenna of a radio receiver 3) for detecting a response from said responder device (1) (i.e. a tag transponder) (column 5 lines 66 to column 6 line 6; see Figure 5).

However, Yerbury et al. did not explicitly disclose a transmitting device which transmits an inquiry to a responder device in the form of short bursts of pulses in order to transmit coded information.

In the same field of endeavor of a two-way communication system, Kiser teaches that a transmitting device (11) (i.e. a transmitter of an aircraft) which transmits an inquiry to a

responder device (13) (i.e. a receiver of a ground troop) in the form of short bursts of pulses (i.e. a first series of pulse) in order to transmit coded information (i.e. a coded optical signal) (column 2 line 16 to column 3 line 35; see Figure 1) in order to identify the ground troop as friendly or hostile.

One of ordinary skilled in the art recognizes the need to transmit a coded optical signal of Kiser in the transmitting an intense pulses of light of short rise time of Yerbury et al. because Yerbury et al. suggest it is desired to provide that a remote interrogator can be provided to direct the light pulses by an infrared, laser or visible light to a tag transponder in order to receive real time information (column 4 line 60 to column 5 line 33; see Figure 1) and Kiser teaches that a transmitter of an aircraft to transmit an a coded optical signal to unidentified ground troops and if unidentified ground troops are friendly, they will response with a coded signal to an aircraft to determine that the code with which received pulses are matched (column 2 line 34 to column 3 line 35) in order to identify the ground troops are friendly or hostile. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to transmit a coded optical signal of Kiser in the transmitting an intense pulses of light of short rise time of Yerbury et al. with the motivation for doing so would have been to provide a secure and reliable transmissions signal of a passive identification of friend vs. foe apparatus in order to avoid potentially disastrous effect.

Referring to claim 2, Yerbury et al. in view of Kiser disclose the interrogation system in accordance with claim 1, Yerbury et al. disclose wherein said transmitting device has a control

circuit (4) (i.e. microprocessor) and an antenna (2) for transmitting its inquiry signals (column 4 line 60 to column 5 line 16; see Figure 1).

Referring to claim 3, Yerbury et al. in view of Kiser disclose the interrogation system in accordance with claim 2, Yerbury et al. disclose wherein the antenna (62) is integrated into said control circuit (61) (column 5 line 4 to 16; see Figures 1-2).

Referring to claim 7, Yerbury et al. in view of Kiser disclose the interrogation system in accordance with claim 1, Yerbury et al. disclose wherein sensor (23) (i.e. an antenna) of the responder device (1) (i.e. a tag transponder) is designed to be received in a portable harness system (i.e. a remote identification system) (column 4 lines 4 to 19; see Figure 1).

Referring to claim 8, Yerbury et al. in view of Kiser disclose the interrogation system in accordance with claim 1, Yerbury et al. disclose wherein at least a part thereof can be integrated into a weapon (column 2 lines 17 to 30; column 2 line 46 to 54).

Referring to claim 9, Yerbury et al. in view of Kiser disclose the interrogation system in accordance with claim 1, Yerbury et al. disclose wherein said responder device (1) includes an antenna (23) for receiving said electromagnetic pulses from said a transmitting device (2) (column 5 lines 4 to 16; see Figures 1 and 3).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yerbury et al. (US# 5,134,277) in view of Kiser (US# 6,097,330) as applied to claim 1 above, and further in view of Fuchter et al. (US# 6,140,982).

Referring to claim 4, Yerbury et al. in view of Kiser disclose the interrogation system in accordance with claim 1, however, Yerbury et al. in view of Kiser did not explicitly disclose wherein said directional specificity is achieved with an angle of a radiated lobe below 50 mrad.

In the same field of endeavor of a two-way communication system, Fuchter et al. teach that directional specificity is achieved with an angle of a radiated lobe below 50 mrad (i.e. a maximum of 10 degree cone angle) (column 4 lines 10 to 22) in order to avoid a discovery of the interrogator.

One of ordinary skilled in the art recognizes using the directional specificity is achieved with an angle of a radiated lobe below 50 mrad of Fuchter et al. in the pulses of light of short rise time of Yerbury et al. in view of Kiser because directional specificity is achieved with an angle of radiated lobe below 50 mrad would improve the reliable and secure of the transmitted signal from an interrogator that has been shown to be desirable in the code signal of a friendly fire avoidance system of Yerbury et al. in view of Kiser.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yerbury et al. (US# 5,134,277) in view of Kiser (US# 6,097,330) and Fuchter et al. (US# 6,140,982) as applied to claim 4 above, and further in view of Udd et al. (US# 5,091,917).

Referring to claim 5, Yerbury et al. in view of Kiser and Fuchter et al. disclose the interrogation system in accordance with claim 4, however, Yerbury et al. in view of Kiser and Fuchter et al. did not explicitly disclose wherein said responder generates staggered information pulses with different distances between said pulses corresponding to said staggered transmitting device pulses.

In the same field of endeavor of transmitting pulses by a signal source, Udd et al. teach that responder generates staggered information pulses with different distances between said pulses corresponding to said staggered transmitting device pulses (column 5 line 19 to column 6 line 34; see Figure 4) in order to create a periodic pulse train of difference in arrival time.

One of ordinary skilled in the art recognizes generating staggered information pulses with different distances between pulses of Udd et al. in the electromagnetic pulses of the interrogator of Yerbury et al. in view of Kiser and in further view of Fuchter et al. because generating staggered information pulses with different distances between pulses would improve the difficulty of recognizing the transmitted signal from an interrogator that has been shown to be desirable in the passive identification of friend vs. foe apparatus of Yerbury et al. in view of Kiser and in further view of Fuchter et al.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yerbury et al. (US# 5,134,277) in view of Kiser (US# 6,097,330) as applied to claim 1 above, and further in view of Wagner (US# 5,130,713).

Referring to claim 6, Yerbury et al. in view of Kiser disclose the interrogation system in accordance with claim 1, however, Yerbury et al. in view of Kiser did not explicitly disclose wherein said transmitting device can perform a distance measurement using the response signal received from said responder device.

In the same field of endeavor of identifying a target as a friend or foe, Wagner teaches that transmitting device (i.e. an interrogation device; see Figure 1) can perform a distance measurement using the response signal received from said responder device (i.e. an answering device; see Figure 2) (column 4 lines 8 to 33; column 6 lines 17 to 30).

One of ordinary skilled in the art recognizes using the reply signal of the reply transmitter to determine a distance measurement of Wagner in the remote data transfer system of Yerbury et al. in view of Kiser because Yerbury et al. suggest it is desired to provide that a tag transponder which can be interrogated selectively from a distance and can be used in a plurality of different environment to returned information from a distance (column 8 lines 19 to 29) and Wagner teaches that the transit time determination within the framework between the HF transmitting device and the HF receiving device to determine the distance measurement (column 6 lines 17 to 30). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to use the reply signal of the reply transmitter to determine a distance measurement of Wagner in the remote data transfer system of Yerbury et al. in view of Kiser with the motivation for doing so would have been to provide a useful information of a distance measurement between an interrogator and a transponder for the identification friend or foe system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam V Nguyen whose telephone number is 703-305-3867. The examiner can normally be reached on Mon-Fri, 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 703-305-4704. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Nam Nguyen
March 5, 2004

NN

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